

## ABSTRACT

A process to facilitate mercury extraction from high temperature flue/fuel gas via the use of metal sorbents which capture mercury at ambient and high temperatures. The spent sorbents can be regenerated after exposure to mercury. The metal sorbents can be used as pure metals (or combinations of metals) or dispersed on an inert support to increase surface area per gram of metal sorbent. Iridium and ruthenium are effective for mercury removal from flue and smelter gases. Palladium and platinum are effective for mercury removal from fuel gas (syngas). An iridium-platinum alloy is suitable for metal capture in many industrial effluent gas streams including highly corrosive gas streams.